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To Our Readers:

Lydia Scoon's first article for **Family Economics Review**, "Utility Expenditures of Homeowners," is found on pages 2-6 of this issue. Ms. Scoon joined the Family Economics Research Group full time in July 1986, after having served with us as an intern while pursuing her degree in home economics at Howard University.

The other two articles are based on papers presented at the Outlook for Families session of the 1989 Agricultural Outlook Conference:

Jeanette Brandt's paper, "Housing and Community Preferences: Will They Change in Retirement?", pages 7-12, describes selected findings from a Western Regional project - "Housing and Locational Decisions of the Maturing Population: Opportunities for the Western Region." Dr. Brandt is an Associate Professor at Oregon State University.

Jeanne Hogarth reports on findings from the Longitudinal Retirement History Survey (U.S. Department of Health and Human Services) that focus on the characteristics of households that are savers and dissavers in retirement. The article, "Saving and Dissaving in Retirement," is found on pages 13-17. Dr. Hogarth is an Associate Professor at Cornell University.

Joan C. Courtless
Editor

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May 1989

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Utility Expenditures of Homeowners

By Lydia M. Scoon
Social Science Analyst
Family Economics Research Group

Household utility expenditures for U.S. homeowners increased by 160% between 1973 and 1983. Because prices for utilities had increased by 193% during this period, expenditures in real terms were higher in 1973 than in 1983. Consumption levels were down, and energy conservation was being practiced. Utility expenditures in 1983 were highest among households with incomes of \$40,000 or more, a homeowner between 45 and 54 years of age, and a household size of five or more. Electricity comprised the largest share, 37%, of the utility dollar. The various utility components differed in importance among subgroups of U.S. homeowners. Findings that are related to patterns of consumption can guide professionals who advise families on managing their resources.

Utility expenditures of U.S. homeowners, as a share of total expenditures, increased gradually over the 1973-83 decade (from 7% to 9%) (5-9), despite dramatic price increases in fuel oil and natural gas (see figure). Utility prices increased by 193% between 1973 and 1983—faster than prices of all items (123%)—in part, spurred on by the oil embargo of 1973. In constant 1988 dollars, however, expenditures for utilities were larger in 1973 (\$2,263) than in 1983 (\$2,012). This article examines utility expenditures for U.S. homeowners and describes how households adjusted to changing utility prices in the 1973-83 decade.

Source of Expenditure Data

Data are from the 1982-83 Consumer Expenditure Survey (CEX), a continuing survey conducted by the Bureau of the Census, U.S. Department of Commerce, for the Bureau of Labor Statistics (BLS), U.S.

Department of Labor. Findings reported here are based on responses from over 11,000 urban homeowners who reported positive income, were complete income reporters, and participated in the Interview portion of the Survey in 1983. Renters were excluded from this analysis because their utility expenses were frequently embedded in, and indistinguishable from, their rental payments. Household expenditures for total utilities and the five components of this total (electricity; natural gas; fuel oil and other fuels;

telephone services; and water, sewerage, and other services)¹ were studied for a weighted sample.

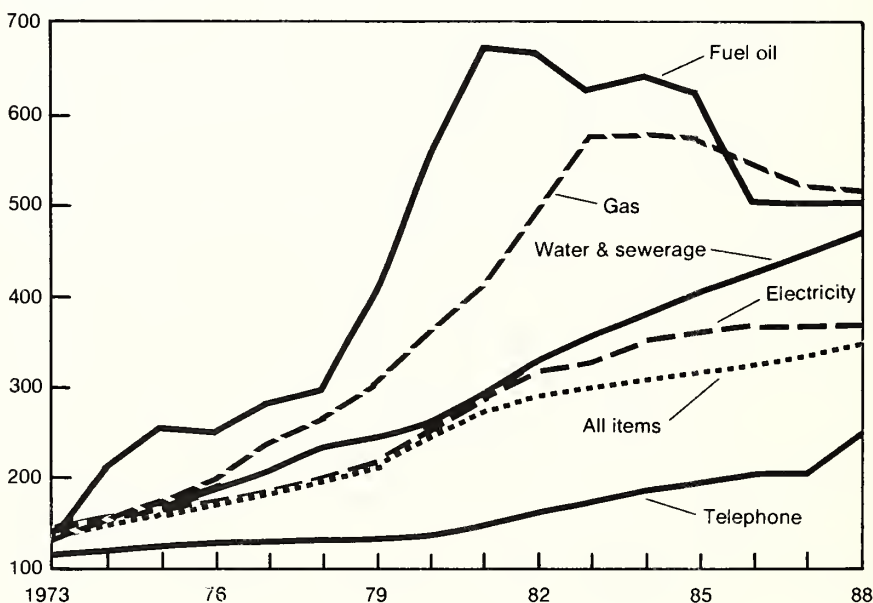
Expenditures for All Homeowners and Subgroups

In 1983 the average utility expenditure by homeowners was \$1,938, 9% of total expenditures (see table). The largest portion of the utility budget was allocated to electricity (37%), followed by telephone services (23%), natural gas (21%), water (10%), and fuel oil (9%). Variation in spending for total utilities was found for households with different socioeconomic characteristics such as income, age of householder, race, household size,

¹ Under "fuel oil and other fuels," BLS includes fuel oil, kerosene, bottled or tank gas, wood, coal, and other fuels. Similarly, "water, sewerage, and other services" includes piped-in water, trash and garbage collection, sewerage maintenance, water softening, septic tank cleaning, and community antenna or cable television services.

All Items and Utility Prices

[CPI-W 1967=100]



Utility expenditures of homeowners, by household characteristics, 1983

Household characteristics	Mean utility expenditures	Utilities as a percent of total expenditures	Utility components (percent of utility expenditures)				
			Electricity	Telephone services	Natural gas	Water ¹	Fuel oil ²
All households	\$1,938	9%	37%	23%	21%	10%	9%
Income level:							
Under \$10,000	1,549	14	33	22	23	11	11
\$10,000–\$19,999	1,747	11	37	22	21	10	10
\$20,000–\$29,999	1,940	10	37	22	22	10	9
\$30,000–\$39,999	2,049	9	38	24	20	11	7
\$40,000 and over	2,356	7	39	25	19	10	7
Age of householder (years):							
Under 25	1,541	9	42	25	16	9	8
25–34	1,764	8	38	26	18	11	7
35–44	2,112	8	39	23	20	11	7
45–54	2,306	9	37	25	20	11	7
55–64	1,957	10	35	23	22	10	10
65 and older	1,682	12	33	20	23	10	14
Race:							
White and other	1,924	9	37	23	21	10	9
Black	2,103	13	34	25	24	10	7
Household size (members):							
1	1,435	11	31	23	26	10	10
2	1,779	9	35	23	21	10	11
3	2,097	9	39	23	20	10	8
4	2,207	8	40	23	20	11	6
5	2,369	8	37	23	20	11	9
6 or more	2,463	10	40	23	20	11	6
Region of residence:							
Northeast	2,163	9	31	21	21	7	20
Midwest	2,006	10	33	21	32	10	4
South	1,947	9	46	25	12	12	5
West	1,612	7	32	28	23	15	2

¹ Water includes water, sewerage maintenance, water softening, septic tank cleaning, and community antenna or cable television.

² Fuel oil includes fuel oil kerosene, bottled or tank gas, wood, coal, and other fuels.

and region of residence. Higher-than-average expenditures were reported by households:

- with incomes over \$30,000
- with a homeowner 35 to 54 years of age
- with a black homeowner
- with three or more members
- with a residence in the Northeast or Midwest

When considering utility budget shares allocated for individual utilities, electricity comprised the largest portion (31% to 46%) for all subgroups. Variation was greatest for natural gas, which accounted for 12% of the utility budget in Southern

households and 32% in Midwestern households. The share allocated to water remained relatively constant (9% to 11%) among all subgroups except for region of the country.

Income. As income increased, so did the total utility expenditure. Households with before-tax income of \$40,000 and above had average utility expenditures that were 50% higher than households with income less than \$10,000. However, the percentage of the total budget allocated to utilities decreased as income level increased (14% to 7%). Income affected individual utility expenditures similarly, that is, expenditures generally increased as income increased. Utility budget shares for natural gas and fuel oil tended to decrease with increasing income levels. Budget

shares for electricity and telephone services were somewhat larger at the higher income levels.

Age of householder. Households headed by an individual between 45 and 54 years of age had the highest income, total expenditures, and total utility expenditures. This pattern reflects the increased familial and financial responsibilities carried in the middle years, and contrasts with the young householder with an entry-level job and a burgeoning household and the older householder with a fixed income and independent children. The only individual utility expenditure that increased with age was fuel oil. Fuel oil is more commonly used in older housing, and older householders are more likely

than younger householders to own these older homes.

Older households, compared with younger households, tended to devote a greater share of their total expenditures to utilities. Older households allocated a larger share of their utility budget to natural gas and fuel oil, and a smaller share to electricity and telephone services. In contrast, households with a reference person under 25 years of age had the largest utility budget share for electricity (42%) and the smallest shares for natural gas and fuel oil. The younger homeowners may be more likely to purchase new homes that are more commonly fueled by electricity.

Race. Utility expenditures in black households averaged 9% higher than in white households (\$2,103, compared with \$1,924), although black households had 28% lower income and 33% lower expenditures for shelter than white households. Spending on utilities comprised a larger share of total expenditures in black households. Black households allocated a greater portion of their utility budget to natural gas and telephone services than did white households, whereas white households allocated a greater portion of their utility budget to electricity and fuel oil than did black households.

Household size. Utility expenditures increased as the number of persons in the household increased. However, per capita utility expenditures decreased as number in household increased, reflecting economies of scale. The shares of the utility budget allocated to telephone services and water were relatively constant among families of all sizes.

Region of residence. Households in the Northeast and Midwest spent the most on total utilities (\$2,163 and \$2,006, respectively). According to the 1984 Residential Energy Consumption Survey conducted by the U.S. Department of Energy between April 1984 and March 1985, fuel consumption levels per household were 47% to 52% greater in the Northeast and Midwest than in the South and


West (4). Average prices for fuels were higher in the Northeast and South than in the Midwest and West. The share of the utility expenditure allocated to each utility varied by region. For the electricity component, the region with the largest share was the South; for natural gas, it was the Midwest; for fuel oil, it was the Northeast; and for both telephone and water, the region having the largest share was the West.

Prices, Expenditures, and Consumption Over Time

During the 1972-73 and 1980-83 periods, households responded to changes in utility prices with changes in consumption. When utility prices rose slowly, annual expenditure increases outpaced annual price increases, an indication that increased consumption was taking place. For example, in 1973 and in 1983, prices for utilities rose by 6% over preceding years and expenditures increased by 8% and 7%, respectively; thus, consumption of utilities increased. In contrast, in 1981 and in 1982, years with double-digit inflation for utilities, expenditures increased but not as rapidly as prices. This would suggest that consumption was suppressed during years of high inflation. Most annual price changes for individual utilities affected consumption similarly.

When utility prices are rising, homeowners may look for ways to conserve energy and lower utility consumption. Two of the most common fuel conservation strategies have been to add insulation and weather stripping (see "Energy conservation improvements," (box, p. 5). Additionally, the use of "energy-efficient mortgages" has allowed some homeowners to achieve energy savings and improve the quality of their home. Related legislation that could affect household energy consumption and expenditures is described in the box on p. 6.

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Energy Consumption and Conservation

U.S. Department of Energy's Fuel Expenditure Data

The Residential Energy Consumption Survey (RECS), conducted periodically by the Department of Energy since 1978, provides consumption levels and expenditures of major fuels used by households (natural gas, electricity, fuel oil, wood or kerosene, and liquefied petroleum gas) by demographic characteristics. Data, except for kerosene and wood fuel, are based on actual bills, obtained with permission of the households, from the companies supplying the energy. (Data for kerosene and wood fuel are based on respondent recall.) Estimations of consumption and expenditures are made for households that pay for fuels indirectly in rental fees. Results from the study undertaken between April 1984 and March 1985 (10, 11) are highlighted below.

- **Consumption over time.** In 1984, average household consumption of major fuels varied little from the 5-year-low level reached in 1982.
- **Electricity and appliances.** Household use of electricity declined even though the use of major electrical appliances increased. Improvements in the efficiency of major appliances and technological breakthroughs, such as low-energy microwave ovens, were contributing factors.
- **Home heating fuels.** Between 1978 and 1984, there was a decrease in the percentage of homes heated with fuel oil or kerosene (from 22% to 14%). The preferred heating fuels in

homes built in 1980 or later were natural gas (36%) and electricity (40%). In 1984, 55% of all households used natural gas as the main heating fuel, 17% used electricity, 14% used fuel oil or kerosene, 8% used wood, 4% used liquid petroleum gas, and 2% used another fuel (or none). The number of households with one or more kerosene space-heating units increased from 3 million in 1982 to 5 million in 1984.

- **Air-conditioning.** In 1984, 60% of all households had air-conditioning, up from 56% in 1978. About 50% of air-conditioned homes were being cooled by central air-conditioning equipment in 1984, compared with 41% in 1978. Also in 1984, heat pumps were in 12% of all homes, up from 6% in 1978. There is no evidence that higher income families keep their air-conditioned homes cooler than lower income families. However, affluent families had their air-conditioners operating more often than less affluent families. Households in warmer regions of the country maintained an average air-conditioned temperature of 75 degrees Fahrenheit, compared with 71 degrees Fahrenheit for households in colder regions.
- **Energy conservation improvements.** The two most common conservation features found in single-family housing units in 1984 were ceiling or roof insulation (79% of units) and caulking or weatherstripping (70% of units). Fewer than 50% of these housing units had storm windows on most of their windows, and even fewer (39%) had storm doors on most of their doors. The

incidence of conservation improvements tends to increase with age of householders, peaking at 35 to 44 years, and then declining for householders age 45 and older. Also, the percentage of homes having conservation improvements increased as family income increased. Conservation measures were less prevalent among nonwhite than white householders and among those who failed to finish high school than those who did finish.

- **Budget plans.** Few householders used the budget plans that are available from utility companies to balance out payments during seasonal surges. In 1984, budget plans were employed by 17% of households using natural gas, 15% of households using fuel oil, 9% of households using liquid petroleum gas, and 6% of households using electricity for heating or cooling.
- **Housing structure.** The younger the structure, the less fuel was consumed. Households living in houses built in the eighties spent approximately \$900 for fuel, compared with \$1,100 to \$1,200 spent by households living in older houses. Households in single-family dwellings (attached and detached) consumed more fuel than households in multiple-family dwellings or mobile homes.

Energy-Efficient Mortgages and Improvement Loans

In a climate of rising energy prices, owning or obtaining an energy-efficient home may result in savings to the consumer in the form of lower energy bills and an increased market value of the home. Several secondary mortgage lenders, such as the Federal Home

Loan Mortgage Association (Fannie Mae) and the Federal Home Loan Mortgage Corporation (Freddie Mac), are facilitating consumers' efforts toward energy improvements by buying energy-efficient mortgages and improvement loans from primary lenders. The energy-efficient mortgage is a mortgage based upon the assumption that by reducing one of the homeowner's major, fixed operating expenses—energy costs—homeowners may transfer the savings to other fixed expenses, such as the mortgage payment. Lenders may allow a borrower 12% more mortgage dollars and thus enable the homeowner to purchase a larger home or qualify for a first home. The Federal Housing Administration and the Veterans' Administration (2) also are involved in buying these energy-improvement loans.

The energy-efficient mortgage has not yet gained wide acceptance among all participants in the mortgage loan process. Primary lenders profit little from it, and appraisers and real estate agents need to become more aware of the implications for energy efficiency and energy savings. Several State-level programs have achieved some success (2). The Alliance to Save Energy (a nonprofit, bipartisan coalition of business, labor, government, and consumer representatives) has conducted research and demonstration projects, and has carried out policy advocacy and public education

programs in efforts to increase the efficient use of energy.²

Energy Legislation Concerning Consumers

The National Appliance Energy Conservation Act (3) was passed into law in March 1987 following a decade of legislative debate prompted by the energy shortage of the seventies. The 1987 law places energy conservation standards on most of the large appliances manufactured and sold in the United States. These standards take effect between 1988 and 1993 and cover refrigerators and freezers, central air-conditioners and heat pumps, clothes washers and dryers, direct heating equipment, dishwashers, furnaces, kitchen ovens and ranges, pool heaters, and television sets. Appliances designed solely for use in recreational vehicles and other mobile equipment are excluded. Affected appliances must demonstrate a 15% to 25% improvement in energy efficiency.

As a result of the legislation, appliance prices may increase, making benefits to the consumer not readily apparent. However, in the long run, higher appliance prices should be offset by lower gas and electricity expenses. The American Council for an Energy-

²The publication "Your Home Energy Portfolio" (a pamphlet with a home energy efficiency checklist and sections concerning auditing and benefits of creating an energy-efficient property) is available free upon request from Alliance to Save Energy, P.O. Box 57200, Washington, DC 20037.

Efficient Economy, an organization of conservation economists, projects reduced operating costs at about three times the increased cost of the product. It is estimated that by the year 2000, approximately \$3.8 billion in energy costs will be saved annually, or \$300 per household (1). Peak electricity demand should decrease, because appliances account for 24% of U.S. electricity consumption.

The Tax Reform Act of 1986 indirectly yields savings to consumers on utility bills for gas, electricity, water, and telephone service. Utility companies have received the following two concessions through this legislation:

(1) utility tax rates for these companies decreased from 46% to 40% in 1987, and to 34% in 1988; and (2) in 1987, funds previously set aside to pay taxes at the old rate of 46% (a total of \$15 billion nationwide) were released to the utility companies. Balanced against the withdrawal of investment tax credits and the slowed rate of property depreciation (two tax loopholes the industry previously enjoyed), the net effect of these tax changes to utility companies will be a savings that must be passed on to consumers.

Public utility commissions in nearly every State are contemplating adjustments in consumer utility rates. Some utility companies have suggested using the savings from the Tax Reform Act of 1986 for capital improvements or as a fund reserved for postponing future rate hikes.

Housing and Community Preferences: Will They Change in Retirement?

By Jeanette A. Brandt¹
Associate Professor
Oregon State University

Most persons approaching retirement have a choice—to remain in their current residence or to make a change in housing or in the community in which they live. A Western Regional survey of over 5,000 maturing men and women was undertaken to determine if housing and community characteristics preferred for the first 10 years of retirement are different from the current location. Most respondents preferred to own a single-family detached house in the community and State where they currently live. Although 87% currently owned their home, 92% wanted to own their home in retirement. In contrast, 84% currently lived in a single-family detached home, compared with 74% who expressed a preference for this type of structure in retirement. As length of residence in a community increased, the percentage preferring to remain there in retirement also increased. The majority of respondents preferred to retire in their respective States; over three-quarters of those in Oregon and Arizona wanted to remain there. Professionals who advise families need to be aware of the housing and community options most likely to be preferred by those nearing retirement.

Introduction

The elderly population, previously treated as one market (4), is now looked at as three distinct markets: The young-old (65 to 74 years) are generally active retirees who are still married; the old (75 to 84 years) are slowing down and often widowed; and the very old (age 85 and older) frequently need help in daily functioning. Impact from the

young-old segment has been strongest because there are more of them and they have substantial income with which to carve out new, independent lifestyles. Currently, no role models are available to guide these people in their decision making (6). Litwak (3) suggests that the young-old experience some social pressure to relocate at retirement if they are married, in good health, and have enough retirement income.

What are maturing Americans' housing and community preferences for their first 10 years of retirement? How do their current housing and community characteristics compare with their retirement preferences? Will they prefer to relocate or to age "in place"? To address these questions, a survey was conducted as part of a Western Regional project titled "Housing and Locational Decisions of the Maturing Population: Opportunities for the Western Region." Eight Western States (Arizona, Colorado, Idaho, Nevada, Oregon, Utah, Washington, and Wyoming) and Missouri participated in the survey. Regional data from the nine States were used in the analyses.

Methodology

Description of the questionnaire. The Western Regional W-176 Technical Committee developed a 10-page mail questionnaire based on a review of previous retirement literature. The Total Design Method for

Mail Surveys by Dillman (1), a survey method used to elicit a higher response rate, was employed in designing the questionnaire and in collecting the data.

Sample selection. Land-grant university employees age 40 and older were selected as the population. The sample was selected from two age strata—40 through 49 years of age and 50 years of age and older. One-third of the sample was randomly selected from the younger age stratum and two-thirds from the older age stratum. A higher proportion of the older age group was sampled because they were closer to retirement and may have developed a better defined set of criteria to use in making retirement decisions.

Data collection. In October 1987 the questionnaire was distributed through campus mail; off-campus employees received their questionnaires in postpaid envelopes. A followup letter was sent 1 week after the initial mailing to everyone in the sample who had not responded. A second followup letter and replacement questionnaire were sent 2 weeks later to persons who had not yet responded. Response rates by States ranged from 71% to 84%, and a total of 5,662 questionnaires were returned from the nine States.

Analysis. Housing and community characteristics as defined in this study can be found in the box on page 8. Frequency distributions were used to describe the respondents and current and preferred housing and community characteristics. Two-way crosstabs with the chi-square statistic were used to determine relationships between current and preferred housing and community characteristics. Three-way crosstabs involving demographic characteristics, current housing and community characteristics, and preferred housing and community characteristics were also employed. The level of significance was set at .05.

¹This article is adapted from a paper presented at the Annual Agricultural Outlook Conference in November 1988 in Washington, DC.

Housing and community characteristics

*For current location and preferred location*¹

Tenure:

Rent or own

Structure type:

Single-family house (detached from any other) or other structure type (town house; apartment; mobile home on owned or rented lot; buildings of duplexes, triplexes, or quadplexes). (Preferred retirement choice included recreational vehicles.)

County by size of largest city:

500,000 or more

150,000 to 499,999

50,000 to 149,999

10,000 to 49,999

2,500 to 9,999

Less than 2,500

(Zip codes determined county of residence, then county was classified by size of largest city.)

State:

Arizona

Colorado

Idaho

Nevada

Oregon

Utah

Washington

Wyoming

Missouri

(Preferred retirement choice also included "other.")

For current location only

Number of years in present county:

Years lived in or near the county in which current home is located.

*For preferred location only*¹

Retire in or near present community:

Strongly prefer present community

Somewhat prefer present community

Somewhat prefer somewhere else

Strongly prefer somewhere else

¹ For the first 10 years of retirement.

current county of residence has been home to the respondents for a mean of 21 years, with a range from less than 1 year to 70 years. Each of the nine States is represented, comprising between 9.5% and 13.3% of the sample. Most respondents currently lived in counties with the largest city having a population of 10,000 to 49,999.

Preferred retirement housing and community characteristics.

Home ownership and single-family detached houses were preferred for the first 10 years of retirement (table 2). Over 60% of the respondents preferred to live in counties with the largest city having a population of 10,000 to 149,999. This compares with over 80% currently residing in such communities. Of the nine States in the survey, only Oregon and Arizona were preferred by a percentage greater than that currently residing in the State. Other States, not included in the survey, were preferred for retirement by 23% of the respondents.

Current housing tenure and tenure preference. Current homeowners and renters both preferred to own their homes during the first 10 years of retirement (table 3, p.10). The two groups differed ($p < .05$) in that current renters are more likely than current owners to prefer renting their retirement housing.

In addition, owners and renters differed in their retirement tenure preferences when controlled for age, sex, marital status, educational level, or income (each $p < .05$). As age increased, current renters' ownership preference decreased (88.7% to 62.0%), whereas current homeowners' ownership preference remained relatively stable (96.5% to 95.1%). More male renters than female renters preferred ownership; however, both male and female owners preferred home ownership during the first 10 years of retirement. Home ownership was preferred by both married and unmarried owners; whereas among renters, more married than unmarried respondents preferred home ownership.

Findings

Description of respondents.

Median age of the respondents was 52 years, with a range of 40 to 80 years. The majority were male, married, and highly educated (table 1). More than half of the respondents held masters or doctorate degrees. Two-thirds reported total family income above \$35,000. Therefore, the

sample has above-average socioeconomic characteristics. Findings reported here reflect current housing and future preferences for a select population, not necessarily attributable to older Americans in general.

Current housing and community characteristics. Most homes were owner-occupied and single-family detached houses (table 2). The

Table 1. Demographic characteristics of preretirement men and women

[5,662 respondents]¹

Characteristic	Percent	Characteristic	Percent
Age (years):		Education:	
40 – 44	18.6	High school or less	14.1
45 – 49	18.1	Beyond high school	18.7
50 – 54	24.2	Bachelor's degree	11.9
55 – 59	20.2	Masters degree	17.1
60 and over	17.9	Doctorate degree	35.0
Sex:		Income:	
Male	58.6	Less than \$25,000	16.5
Female	38.9	\$25,000 – \$34,999	16.5
Marital status:		\$35,000 – \$49,999	26.1
Married	78.6	\$50,000 – \$64,999	19.8
Unmarried ²	20.3	\$65,000 or more	17.8

¹ Not all respondents reported each characteristic.

² Includes never married, separated, divorced, and widowed.

Table 2. Housing and community characteristics, current and preferred for retirement

[5,662 respondents]¹

Characteristic	Current	Retirement preference
	<u>Percent</u>	
Tenure:		
Own	87.2	92.3
Rent	9.4	6.0
Structure:		
Single-family houses	84.3	74.2
Other structure types	14.7	22.0
Number of years in present county:		
Less than 2	2.2	(2)
2 – 5	8.2	(2)
6 – 10	11.7	(2)
11 – 15	15.4	(2)
Over 15	62.2	(2)
Retire in or near present community:		
Strongly prefer present community	(2)	34.9
Somewhat prefer present community	(2)	31.0
Somewhat prefer somewhere else	(2)	18.5
Strongly prefer somewhere else	(2)	14.6
County by size of largest city:		
500,000 or more .....	.2	9.7
150,000 – 499,999	11.9	14.3
50,000 – 149,999	27.1	30.5
10,000 – 49,999	54.6	31.6
2,500 – 9,999	2.7	4.9
Less than 2,500	1.1	3.7
State:		
Arizona	9.5	11.2
Colorado	11.1	9.9
Idaho	10.9	8.6
Nevada	10.5	6.0
Oregon	11.6	12.5
Utah	11.2	7.5
Washington	13.3	10.3
Wyoming	10.6	5.0
Missouri	11.3	6.1
Other State	(2)	22.9

¹ Not all respondents reported each characteristic.

² Not applicable.

As educational level increased, current renters were more likely to prefer ownership during the first 10 years of retirement (table 3). In contrast, retirement tenure preferences expressed by current owners were similar regardless of educational level.

Current housing structure type and structure type preference. Respondents currently living in single-family detached houses preferred to live in single-family detached houses during the first 10 years of retirement, and those living in other structure types preferred to live in other structure types (table 4, p. 10). When the groups were controlled for age, sex, marital status, educational level, or income level, there were the following exceptions: (1) When those who currently resided in other structure types were controlled for age, those in the youngest age category indicated a slight preference for living in single-family houses. This preference steadily decreased with age, until only about one in four respondents 60 years and older currently living in other structures would have preferred to live in a single-family detached house during their first 10 years of retirement. (2) When those who currently resided in other structure types were controlled by income, slightly over half of those in the fourth highest category (\$50,000 to \$64,999) preferred a single-family house for retirement. When those who currently resided in single-family houses were controlled for education, the preference toward single-family houses increased with educational level (79.4% to 85.8%). Overall, those currently residing in single-family houses were more likely to prefer a similar type structure for retirement than those currently living in other structure types.

Number of years in county where present home is located and preference to retire in or near present community. Respondents' preferences to retire in or near the present community differed ($p < .05$) by their length of residency in or near the current county. Most of

Table 3. Tenure preference, by current housing tenure

Characteristic	Number of respondents	Preference for ownership during first 10 years of retirement	
		Current owners	Current renters
All respondents	5,490	96.0%	78.4%
Age (years):			
40 - 44	1,235	96.5	88.7
45 - 49	1,071	96.9	83.2
50 - 54	1,286	95.3	77.7
55 - 59	1,116	95.9	65.1
60 and over	750	95.1	62.0
Sex:			
Male	3,234	96.2	82.1
Female	2,140	95.6	75.3
Marital status:			
Married	4,344	96.0	84.7
Unmarried	1,111	95.9	72.9
Education:			
High school or less	777	95.1	71.7
Beyond high school	1,025	95.8	75.6
Bachelors degree	661	95.6	82.0
Masters degree	949	96.8	78.1
Doctorate	1,929	96.0	86.3
Income:			
Less than \$25,000	911	94.0	73.7
\$25,000 - \$34,999	912	95.9	79.0
\$35,000 - \$49,999	1,439	97.3	77.5
\$50,000 - \$64,999	1,098	95.7	88.2
\$65,000 or more	990	95.9	92.7

Table 4. Structure type preference, by current housing structure

Characteristic	Number of respondents	Preference for living in single-family structure during first 10 years of retirement	
		Single-family structure ¹	Other ²
All respondents	5,387	83.5%	40.0%
Age (years):			
40 - 44	1,230	83.5	51.7
45 - 49	1,053	82.0	45.7
50 - 54	1,264	83.3	38.1
55 - 59	1,091	84.4	33.1
60 and over	716	85.2	26.4
Sex:			
Male	3,185	86.8	44.8
Female	2,093	78.3	35.3
Marital status:			
Married	4,262	85.1	42.9
Unmarried	1,092	74.9	36.8
Education:			
High school or less	744	79.4	31.8
Beyond high school	1,011	79.9	41.7
Bachelors degree	650	84.1	45.0
Masters degree	941	85.0	39.3
Doctorate	1,906	85.8	44.5
Income:			
Less than \$25,000	884	76.7	40.0
\$25,000 - \$34,999	895	82.7	35.8
\$35,000 - \$49,999	1,413	85.6	40.8
\$50,000 - \$64,999	1,085	85.7	50.8
\$65,000 or more	973	83.6	35.4

¹ Single-family house detached from any other house.

² Other structure types, including town house, apartment, mobile home on owned or rented lot, buildings of duplexes, triplexes, or quadplexes.

those reporting "less than 2 years in the present county" stated a preference for retiring elsewhere. As respondents' residency in the present county increased, their preference for remaining there in retirement increased:

Number of years in present county	Prefer to retire in or near present community
Less than 2	44.4%
2 to 5	51.3
6 to 10	58.0
11 to 15	60.7
Over 15	72.5

When respondents' length of residency in the present county and their preference for remaining there or moving away were controlled for age, sex, marital status, educational level, or income level, there were a few variations to this general pattern. The most consistent variation was observed with regard to marital status. Regardless of number of years in current county, a higher percentage of unmarried than married persons preferred to relocate to another county after retirement.

Current State and State preference. The majority of the respondents in eight of the nine States preferred to retire in their respective States. Only in Wyoming did a majority hope to retire out of State. Considerable variation in the percentages of respondents who want to retire in their own States was reported, as follows:

Oregon	78.4%
Arizona	75.7
Colorado	69.0
Utah	63.6
Idaho	60.2
Washington	57.0
Nevada	53.7
Missouri	53.3
Wyoming	44.9

Respondents varied in their retirement State preferences when controlled for age, sex, marital status, educational level, or income, but no consistent patterns of preference are apparent.

Discussion

During the first 10 years of retirement, most maturing respondents in this study preferred to own their single-family detached houses in the communities and States in which they currently resided. Therefore, it would seem that business entrepreneurs targeting retirees in the first 10 years of retirement should direct their strategies toward local markets. Riche (6) reported that the major reason for business "... failure to capture a large share of a burgeoning [retirement] market lies in the preferences of the elderly: most of them want to stay in their current homes, or at least in their communities." Smart (8) also believed the retirement market to be complex and diverse. There are a wide variety of data sources that can be used to develop additional specific findings regarding the maturing markets (2).

In examining the retirement preferences of the respondents studied here, it becomes apparent that instead of one homogeneous market segment for the 65- to 74-year-old age group, there are several submarkets with housing and community retirement preferences that can be targeted. Maturing homeowners want to own their retirement housing, regardless of age, sex, marital status, educational level, or income. They have achieved America's cultural housing norm (5) and prefer to keep it during those early years of retirement. Renters (even though 78.4% preferred to own their retirement housing) exhibit additional differences that need further investigation. Renters who are younger, male, married, and more educated seem to express stronger preferences for home ownership.


Another American cultural housing norm, that of **living in single-family detached houses**, has the retirement preference vote of those who currently reside in them (83.5%). Interestingly, females, the unmarried, and those with incomes

below \$25,000 who currently live in single-family houses show less preference for them in retirement than others who have achieved this norm. Respondents **currently residing in other structure types**, for the most part, prefer them for retirement.

Respondents with a longer residency in a community and State are more likely to prefer that same community and State for their retirement location. Community preference becomes consistently greater as length of residency increases, regardless of respondent's age, sex, marital status, educational level, or income. Demographic characteristics are of little use in explaining State retirement preferences because few consistent patterns emerged among the States. Respondents' retirement State preferences may reflect a general trend. Scattered locations in western Oregon and Arizona have been defined as destination retirement counties, "... counties in which the net in-migration (1970 to 1980) of people aged 60 and over equaled at least 15% of the people in the county of that age in 1980" (7). Respondents in two States, Oregon and Arizona, show greater preference to retire in-State, and Oregon and Arizona are the two most preferred retirement States of the respondents in this study.

In conclusion, retirees can be dichotomized as owners or renters, residents of single-family houses or residents of other structure types, and stayers or movers. Researchers need to combine demographic characteristics to reveal more descriptive, encompassing submarket information. Who wants to own single-family houses, other structure types? Who wants to rent single-family houses, other structure types? What are the preferences of those who plan to relocate within the same State, move to another State? Do those who plan to retire in the same community plan to move, and, if so, what are their housing preferences?

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New Publications

The following publications are for sale from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402. (202) 783-3238:

- **Who's Helping Out: Support Networks Among American Families.** SN803-044-00001-5. October 1988. \$2.25 (44 pp.)

This report from the Census Bureau gives data on how millions of us receive cash support payments from persons living outside our immediate households. It includes formal and informal support networks, and it covers regular cash payments, including court-ordered alimony and support payments to children and ex-spouses, as well as voluntary, regular payments to children living outside the provider's household.

- **Composition of Foods: Fast Foods—Raw, Processed, Prepared.** SN516-000-8108-7. AH 8-21. September 1988. \$11.00 (194 pp.)

This is a Human Nutrition Information Service publication, which serves as a basic reference for data on the nutrients in fast foods. Data are presented for 166 fast foods and related products. Most fast-food items are given in the ready-to-eat form as served by fast-food establishments.

A single copy of the following is available free from the Consumer Information Center. Write to S. James, Consumer Information Center-F P.O. Box 100, Pueblo, CO 81002.

- **Guide to Health Insurance for People With Medicare.** 512V. 1989 (34 pp.)

Medicare information in this booklet was mandated by the Medicare Catastrophic Coverage Act of 1988.

Because these changes are to be phased in over the next few years, the guide will be updated annually to reflect changes in the program as they occur. Included are hints on shopping for private health insurance, types of private health insurance, and what Medicare pays and doesn't pay. Listed in the back of this guide are the addresses and telephone numbers of each of the State agencies on aging, and the State insurance departments. It was developed jointly by the National Association of Insurance Commissioners and the Health Care Financing Administration of the U.S. Department of Health and Human Services.

A single copy of the following is available free from the Economic Research Service. Write to Information Staff, Economic Research Service, USDA, Room 208, 1301 New York Avenue NW, Washington, DC 20005-4788.

- **Agricultural Workforce Households: How Much Do They Depend on Farming?** AIB 547. July 1988. (4 pp.)

This is an Economic Research Service agricultural background report, which includes who is affected and how by agricultural policy. The report identifies the number of households and individuals most affected by changes in farm employment and income. It is aimed at informing those debating farm policy about the highly interrelated nature of policymaking.

Saving and Dissaving in Retirement¹

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There is evidence that retirees dissave during retirement, although levels of dissaving appear to be low. Saving and dissaving behaviors of 450 persons with life expectancies of 17 to 26 years were studied during the first 8 years of retirement (1971-79). Almost half (46%) of these respondents were savers who maintained or added to the value of their financial assets. Savers were less likely to live in an urban area but more likely to have higher income, have higher amounts of appreciation in the market value of their homes, be married, and be male. Nearly one-fifth (18%) of the respondents were dissaving at rates that could not be supported over their expected lifetimes. These severe dissavers had lower annual incomes, lower amounts of appreciation in the market value of their homes, and less education; they were less likely to be married, but were more likely to live in an urban area and be female. Studies on consumption and expenditure patterns could supplement these findings on dissaving practices to provide needed information on appropriate financial management techniques in retirement.

The life cycle hypothesis posits that households will attempt to maintain a constant level of consumption during their lifetimes. To do this, they borrow during the early years of household formation, repay debts and save during peak earning years, and then dissave during retirement years. It follows that households annuitize assets at retirement and draw down their assets in proportion to their life expectancy.

Although this approach is intuitively appealing, it has been shown that households do not behave exactly according to this hypothesis. Many researchers have found that although dissaving does occur during retirement, it is at a lower level than

expected, given the life cycle hypothesis predictions.

Dissaving in retirement does not represent "bad" financial management. Judicious liquidation of financial assets, along with skillful management of remaining assets to generate income, is appropriate for retired households. However, dissaving at rates that cannot support the household for its expected lifetime is a dangerous practice.

Evidence From Life Cycle Research

Numerous researchers have studied the life cycle hypothesis (1, 8, 11), focusing on the "savings" portion (5, 10, 12) as well as the "dissaving" portion (2, 3, 9). Empirical evidence using "macro" data (i.e., data aggregated at the national level) shows some support for this dissaving-at-retirement hypothesis, albeit at low levels.

Davies (3) found that persons 65 to 85 years of age dissaved at a rate of 2.9% to 3.7% per year, a rate significantly lower than the rate of 7% to 9% predicted by the life cycle hypothesis. Similarly, Mirer (9) found a median dissavings rate of 1.2%.

Bernheim (2) used the 1969-79 Longitudinal Retirement History Survey (LRHS)² to study bequeathable wealth. He determined that wealth declined at rates of 3% to 4% per year for single persons and at rates of about 1% to 2% for married couples. He concluded that individuals and couples of retirement age

dissaved an insignificant fraction of their total resources. Housing, however, was included in the wealth measure. Although this is a bequeathable asset, it is not an asset retirees usually manage in the same sense that they manage financial assets. Also, during the time of data collection, real estate values escalated. The low rate of wealth decline may be attributed, in part, to these higher housing values.

Since the life cycle hypothesis combines saving and consumption patterns, another way to approach life cycle research is to look at consumption. Kotlikoff, Spivak, and Summers (7), also using data from the LRHS, studied the ratio of consumption during old age to lifetime consumption as a measure of the adequacy of lifetime savings. Their results indicate that over 90% of married couples can afford old-age consumption levels of at least 80% of their lifetime consumption level, and that 73% of couples could afford to consume at a higher level than their lifetime consumption level, but only until age 88.

Life cycle theory posits that persons will consume less and work more if they expect to live longer. Hamermesh (4) examined the effects of life expectancy on the timing of retirement and consumption during retirement. He found that increased longevity had not brought about spending cuts that would enable people to maintain their real consumption over longer lifetimes. If such is the case, then asset "decumulation" should take place at a more rapid rate as a person ages.

In summary, some evidence exists that retirees dissave during retirement, although levels of dissaving appear to be low. The LRHS provides a wealth of information for studying changes in a set of retirement-age households over a 10-year period from 1969 to 1979. The LRHS included men and unmarried women (single, widowed, divorced, or separated) who were ages 58 to 63 in 1969; initially, there were 11,153 respondents. This article reports

¹ This article is adapted from a paper presented at the Annual Agricultural Outlook Conference in November 1988 in Washington, DC.

² U.S. Department of Health and Human Services, Social Security Administration.

findings from the LRHS that focus on the characteristics of households that are savers and dissavers in retirement.

Characteristics of Savers and Dissavers

In order to control for the length of retirement, respondents were studied who were working in 1969 but who reported themselves retired in 1971. (The potential age range in 1971 was 60 to 65 years.) Data from 1979 were used to determine savings or dissavings during retirement. Because data from both time periods were needed, only respondents with data from 1969 through 1979 were included. Of necessity, this report is on survivors.

Savers were those households that maintained or added to the value of their financial assets from 1971 to 1979. Financial assets include the value of savings bonds, stocks and bonds, savings accounts, checking accounts, and cash value of life insurance. Dissavers were those households for which the value of financial assets in 1979 was less than the value in 1971.

Over half of the households studied (54%) were dissavers. On average, dissavers had lower incomes than savers, \$7,900 and \$9,356, respectively (see table 1). However, dissavers started retirement with about \$7,000 more in financial assets than savers. Among retirees who owned their homes, dissavers reported lower amounts of appreciation in the market value of their homes. Dissavers were more likely to be single and more likely to have experienced the death of a spouse. Nearly equal proportions of savers and dissavers reported themselves in good health, so it seems that medical expenses may not have been the major cause of dissaving. Dissavers were more likely to live in an urban area and were more likely to be female. They had slightly less education than savers and were slightly younger. Nearly equal proportions of savers and dissavers were white.

Disproportionate Dissavers

As stated earlier, dissaving in and of itself is not considered poor financial management if it is done in proportion to remaining life expectancy. To determine if households were dissaving faster than expected actuarially, values of financial assets in 1979 were calculated by estimating the household's life expectancy based on age of head, using actuarial tables. Life expectancy was used to create an annuity factor, which was

applied to the value of financial assets in 1971. The actual value of financial assets in 1979 and the calculated expected value were then compared. For example, if a household head was 62 years old in 1971, his life expectancy would be about 21 years (actuarial values based on age and sex were used to determine life expectancy). By 1979, the household should have spent down or dissaved 8/21sts (38%) of their financial assets if they were annuitizing them, leaving 13/21sts (62%) of the

Table 1. Savers vs. dissavers, 1971-79

Variable ¹	Saver	Dissaver
Number of respondents	218	253
Income	\$9,356	\$7,900
Initial value of assets in 1971	21,298	28,887
House appreciation (1971-79)	20,888	8,495
Marital status (1 = married)	0.89%	0.64%
Widow (1 = widowed) . . . . .	.18	.25
Health (1 = good) . . . . .	.68	.69
Residence (1 = urban) . . . . .	.43	.71
Sex (1 = male) . . . . .	.94	.84
Race (1 = white) . . . . .	.94	.96
Proportion saving . . . . .	.46	—
Education (years)	10.12	10.01
Age (years)	71.37	71.20

¹For the year 1979 unless otherwise noted.

Table 2. Disproportionate dissavers, 1971-79

Variable ¹	Severe dissavers ²	Others ³
Number of respondents	87	384
Income	\$6,438	\$9,058
Initial value of assets in 1971	33,545	23,523
House appreciation (1971-79)	8,606	15,506
Marital status (1 = married)	0.49%	0.81%
Widow (1 = widowed) . . . . .	.21	.22
Health (1 = good) . . . . .	.66	.69
Residence (1 = urban) . . . . .	.78	.54
Sex (1 = male) . . . . .	.74	.89
Race (1 = white) . . . . .	.91	.95
Proportion with severe dissaving . . . . .	.18	—
Education (years)	9.50	10.19
Age (years)	71.14	71.31

¹For the year 1979 unless otherwise noted.

²Includes dissavers who spend down assets faster than expected actuarially.

³Includes savers and dissavers spending down assets at expected rate or slower.

original amount in 1971. The expected value of the assets (in the example, 62% of financial assets in 1971) was then compared to the reported value in 1979 to determine if dissavings had occurred at rates slower or faster than expected.

Nearly one of five households were dissaving at rates that could not be supported over their expected lifetime. Severe dissavers (those spending down assets faster than expected) had lower annual incomes than others (\$6,438 vs. \$9,058) but started retirement with about \$10,000 more in financial assets (see table 2, p. 14). Among homeowners, severe dissavers reported lower amounts of appreciation in the market value of their homes. Over half of those households reporting disproportionate dissaving were single-person households. In contrast, only one of five households reporting saving or appropriate rates of dissaving was a single-person household. Nearly equal proportions were widowed, and nearly equal proportions reported being in good health. Severe dissavers were more likely to live in urban areas and to be female. They were also likely to have fewer years of schooling and to be younger than those not dissaving at disproportionate rates. Severe dissavers were slightly more likely to be of a minority race.

Changes Among Financial Assets in Retirement

Managing assets in retirement requires a combination of liquidation and portfolio adjustment to generate interest and dividend income. Asset management becomes an especially important issue for households that are asset-rich and cash-poor (e.g., those holding a large proportion of their wealth in nonfinancial assets such as real estate). The ability of a retired household to generate income from assets depends, among other things, on the type of assets held and the household's risk preferences, knowledge of financial products and markets, and general skill in financial management.

Mean values of financial and other assets held in 1971 and 1979, and mean differences of these values, are reported in table 3. The aggregate data in columns 1 and 2 suggest that, on average, the nominal dollar value of assets held in savings bonds and the cash value of life insurance declined, whereas the value of assets in stocks, checking and savings accounts, and the value of owned housing rose. In the aggregate, the values of total financial assets and total assets rose.

Information on the mean difference between the value of assets in 1979 and 1971 is presented in column 3, table 3. Over the 8 years studied, on average, balances in

checking accounts rose, as did the value of owned housing, stocks, and the value of total assets. Assets held in savings bonds, savings accounts, and life insurance declined on average, as did the value of total financial assets.

The decline in the value of held savings bonds may be a reflection of the difference between the rate of return on these bonds and the rate of inflation. As inflation eroded the value of the accruing interest, retirees may have decided to cash in these bonds and use or reinvest the proceeds. The decline in the value of life insurance might be expected, since the elderly may feel less of a need for life insurance to support dependents and since life insurance paid very low rates of return relative to inflation in the midseventies. The decline also may reflect beneficiary payments.

Savings balances were lower, on average, but only by \$83. The distribution of this variable was skewed; approximately 28% of households reported a lower savings balance in 1979 than in 1971. In some cases, the difference was quite large; in about 10% of the cases, the savings balances dropped over \$30,000 during the 8-year period.

Total financial assets dropped about \$530 over the 8-year period. This dissavings is consistent with the life cycle theory, but the magnitude is too small to represent any significant dissaving. Given the average age of the sample in 1971 (63 years) and an average life expectancy of 20 years, the life cycle hypothesis would predict that the average individual would have spent down 8/20ths of her or his assets during the period under study. At the mean, this would translate into spending down about \$9,500 of the \$23,900 in financial assets reported in 1971. The increase in the average value of total assets (\$13,637) most probably reflects the rise in housing values over the 8 years.

The higher balances held in checking accounts can be interpreted as an indication of the high liquidity preferences of retirees. It is

Table 3. Mean value of assets, 1971 and 1979
[in nominal dollars]

Item	1971	1979	Mean difference
U.S. savings bonds	\$1,252.27	\$935.68	-\$305.23
Stocks and bonds	6,253.86	7,529.37	1,269.65
Savings accounts	6,949.65	13,248.00	-83.19
Checking accounts	839.10	1,005.06	267.15
Life insurance (cash value)	7,338.35	5,809.26	-1,490.70
Total financial assets	23,903.60	25,862.40	-529.66
House	15,336.44	29,415.10	14,219.36
Total assets	39,078.40	55,086.63	13,636.89

important to note that during the period under study (1971-79), checking accounts were interest-free. It was not until the Monetary Control Act of 1980 that "NOW" and "interest checking" accounts came on the scene. Thus, these retirees were choosing to forego interest in order to remain more liquid.

The higher amounts of stocks held in 1979 versus 1971 may reflect a choice by retirees to participate in a dividend reinvestment program and/or postpone cashing in on their capital gains. Ordinarily, retirees might be expected to end such reinvestment programs and take the dividends as cash income. However, in the early years of retirement, retirees rationally may decide to have an investment goal of continued growth in order to buffer their future income, in 15 or 20 years, against the effects of inflation. The shift out of reinvestment programs and/or out of growth-oriented stocks and into income-producing investments may occur later on in retirement.

The increase in the value of the house is expected because these households could not, or did not, tap the equity in their homes. It is also interesting to note that the value of

housing for persons in this sample increased by a factor of 1.92 from 1971 to 1979. Over the same time period, the CPI for housing rose by a factor of 1.84.

As seen in table 4, retirees' asset portfolios vary depending on whether or not the house is included as an asset. In 1971, 81% of retired households in the LRHS subsample were homeowners; by 1979, 77% were homeowners. Since most retired households do not use their homes to generate income, the following discussion will focus on the portfolios excluding the value of the home. Over the 8 years studied, retirees increased the proportion of assets they held in savings accounts and decreased the proportions of assets held in other investments (table 4). This could be interpreted as a strong preference for safety and liquidity, at the expense of higher rates of return. However, "savings accounts" also include certificates of deposit, which in the late seventies were paying double-digit rates of return. Unfortunately, it is not known what proportions of savings were in passbook accounts versus other, higher yield, savings instruments.

Discussion

The findings reported here focus on saving and dissaving behaviors during the first 8 years of retirement. Since life expectancies ranged from 17 to 26 years after retirement, the first 8 years may not provide enough evidence to capture all the factors affecting saving and dissaving behaviors. With 5% of persons 65 years and over in nursing-care facilities, compared with 22% of persons 85 years and over, dissaving may be better studied at later ages in retirement.

Nearly half of the retired households continued to save and build assets in retirement. Considering that this study covered the the first 8 years of retirement, households may have continued to save in response to uncertainty regarding future health expenses and longevity. Given that this cohort was in their twenties during the Great Depression of the thirties, the value and importance of the "nest egg" and of savings may be quite high. These cohort effects may preclude generalizing these results to future generations of retirees.

On the other hand, nearly one-fifth of the sample were dissaving at rates that could not be sustained during their expected lifetimes. Health was not a significant determinant of severe dissaving, nor was becoming widowed. Income, however, was found to be a significant determinant of dissaving and dissaving at disproportionate rates. If retired households could increase the income generated by their assets, there is less likelihood that they would need to dissave, or at least would be able to dissave at rates that would not totally deplete their resources. Although retirement savings are not venture capital, there are safer and higher return alternatives to passbook savings accounts. Retirees may benefit from exposure to and education about these alternatives.

The findings regarding initial value of assets have some policy implications. Higher initial values of

Table 4. Asset holdings of retired households

Item	At retirement (1971)		8 years later (1979)	
	Including house in portfolio	Excluding house	Including house in portfolio	Excluding house
<u>Nominal dollars</u>				
Mean value	\$44,775	\$28,372	\$66,630	\$34,208
Median value	33,342	15,107	50,103	18,528
<u>Percent</u>				
U.S. savings bonds	3.2	4.7	1.8	2.6
Stocks and bonds	6.5	8.5	5.6	7.8
Savings accounts	28.3	49.3	34.8	66.1
Checking accounts	4.6	8.2	3.8	6.6
Life insurance (cash value) . .	18.2	29.3	9.8	16.9
House	39.2	—	44.2	—

assets are associated with lower probabilities of saving during retirement but with positive increases in the differences between actual and expected values of assets. That is, although households may not be actively saving, they are spending down at an appropriate rate. Therefore, policies should be developed that would provide incentives for building savings for retirement, such as continued support of tax-deferred savings plans.

The large proportion of assets held in owner-occupied housing (44% of total assets in 1979) may be a problem during the later years of retirement when more liquid assets have been spent down. It is likely that consideration of owner-occupied housing as an asset to be managed will become more important, especially in later years of retirement. The appreciation rates for well-maintained houses have tended to keep pace with inflation, making owned housing a "growth investment." At the time of the LRHS (in the seventies), tapping home equity through reverse annuity mortgages or sale and lease-back arrangements was impossible (if not unthinkable). In the eighties, however, the choice set for making housing a more "manageable" asset has expanded. Although equity conversion is one way to manage this asset, there are other options for older homeowners that may provide alternative streams of income, services, or a shifting of resources and/or expenditures (e.g., accessory apartments and home sharing). The feasibility of these options is dependent in part upon the attitudes of the retirees and in part on Federal, State, and local policies and regulations with regard to shared appreciation, zoning, and other issues.

Given some of the limitations of the LRHS data, it is not possible to determine exact patterns of asset "decumulation" during retirement. However, the data give some clues as to how retirees use their assets. First, retirees seem to have shifted money out of low-return, fixed-

income assets, such as savings bonds and life insurance. This finding with regard to life insurance may reflect the collection of beneficiary payments more than the re-arrangement of assets. Second, retirees have strong preferences for safety and liquidity as evidenced by their holdings in checking and savings accounts. However, there is no way to spot movement within categories. For example, retirees could have moved money out of passbook savings accounts and into certificates of deposit, which paid better-than-inflation interest rates in the late seventies. There is no way to know if the proceeds from life insurance were reinvested or used for consumption, although there is evidence that a decline in life insurance is associated with an increase in savings. Similarly, there is no way to know to what degree retirees adjusted their stock portfolio to provide for desired levels of risk, income, and growth.


It would be interesting to know if these households experienced any lifestyle or level-of-living changes in order to maintain some savings. Consumption and expenditure patterns of retired households need to be studied in conjunction with dissaving practices in order to determine if lifestyle changes are occurring.

Finally, the findings point to a need for additional information on appropriate financial management techniques in retirement, including information on dissaving strategies. Unfortunately, little research has been done to clarify appropriate liquidation and other dissaving strategies.

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Child Care Benefits Provided by Employers

In March 1987, 26.1 million children under age 14 lived in homes where the lone parent or both parents were in the labor force. With mothers becoming a more important part of the work force, the potential demand for child care is immense. Although most American employers still do not play an active role in the care of their workers' children, some employers are becoming aware that the difficulties their employees face in making child care arrangements may result in absenteeism, tardiness, low morale, and productivity problems.

To determine what employers were doing to help their employees who are parents, the Bureau of Labor Statistics conducted a special nationwide survey (Survey of Employer-Provided Child Care Benefits) of approximately 10,000 business establishments and government agencies in the summer of 1987. The sample was weighted to represent the Nation's 1.2 million nonagricultural establishments with 10 or more employees. The Survey measured direct and indirect child care benefits or services provided by employers. Direct benefits consisted of employer-sponsored day care, assistance with child care expenses, child care information and referral services, counseling services, and

other child care benefits. Indirect benefits consisted of work schedule or leave policies that can aid child care—flextime, voluntary part time, job sharing, work at home, flexible leave, and other such policies.

Overall Benefits

Approximately 11% of employers reported providing at least some employees with direct child care benefits (table 1). Large establishments (250 employees or more) were far more likely than small ones to offer such benefits to their employees; government agencies

were much more likely than private employers to do so.

About three-fifths of employers reported that at least some of their workers could take advantage of indirect benefits (work schedule or leave policies) related to child care. Such policies may or may not have been initiated with child care in mind. Small establishments were just as likely as large ones to provide liberal work schedule and leave policies. Private, service-sector firms were more likely than either goods-producing firms or government agencies to have indirect benefits available to employees.

Table 1. Provision of child care benefits and work schedule policies aiding child care, by establishment size and industry, summer 1987

Characteristic of establishment	Percent providing:		
	Child care benefits or services	Work schedule policies	Neither
Total	11	61	37
Size:			
10 – 49 employees	9	62	37
50 – 249 employees	15	58	38
250 employees or more	32	59	32
Industry:			
Private (total)	10	61	37
Goods-producing	6	51	46
Service-producing	11	65	34
Government	26	57	40

Source: Hayghe, Howard, 1988, Employers and child care: what roles do they play? *Monthly Labor Review* 111(2):38-44, U.S. Department of Labor, Bureau of Labor Statistics.

Direct Benefits

Direct child care benefits most frequently provided by employers were child care information and referral services (ranging from maintaining a list of child care providers to providing staff assistance in locating and evaluating the providers) and counseling services (table 2). Only 2% of establishments provided day-care facilities, either on-site or at a nearby location; this percentage included day care businesses that made their facilities available to the children of their employees. An additional 3% of employers assisted with child care expenses (flexible spending accounts, contractual agreements with day care providers that allocate space for employees' children or give them discounts, vouchers to defray child care expenses, etc.).

Type and frequency of child care benefits varied by firm size. Relatively few establishments with 10 to 49 employees offered any benefits: 2% sponsored day care, 4% provided information and referrals, and 4% offered counseling services. In contrast, 5% of firms with at least 250 employees sponsored day care,

9% provided financial assistance, 14% provided information and referrals, and 17% offered counseling services.

Direct child care support benefits were reported by very few employers in goods-producing establishments. This reflects the fact that relatively few women work in these industries. In the summer of 1987, 28% of payroll employees in private goods-producing establishments were women, compared with 53% in private service-producing establishments and 51% in government agencies.

Among government agencies (Federal, State, and local), the proportion supporting some form of day care and information, referral, or counseling services was much higher than in private industry. Legislative and executive initiatives have promoted this support. For instance, Michigan has established a pilot day care program to serve the children of State employees, and California has mandated its agencies to provide information and referral services to State employees, as well as the general public.

Indirect Benefits

Work schedule policies that can aid parents in meeting their child care responsibilities are far more common than child care support benefits. Not only is the cost perceived as less, but such policies do not involve the legal and technical complexities of establishing and maintaining day care centers or financial assistance benefits.

Flextime and flexible leave are the most common forms of work schedule and leave policies cited by employers as being of possible aid to workers with child care problems (table 3, p. 20). About 43% of the establishments maintained flextime policies, and an equal proportion had flexible leave arrangements. Flextime was more common in smaller establishments (10 to 49 employees) and service-producing establishments. The availability of flexible leave varied little by size of establishment but was higher in service-producing establishments.

About 35% of employers allowed full-time employees to shift temporarily to part-time jobs on a voluntary basis, with corresponding cuts in

Table 2. Provision of type of child care benefit or service, by establishment size and industry, summer 1987

Characteristic of establishment	Percent providing:				
	Employer-sponsored day care	Assistance with child care expenses	Child care information and referral	Counseling services	Other ¹
Total	2	3	5	5	1
Size:					
10 - 49 employees	2	2	4	4	1
50 - 249 employees	2	5	6	8	2
250 employees or more	5	9	14	17	3
Industry:					
Private (total)	2	3	4	4	1
Goods-producing	0	2	2	3	1
Service-producing	2	4	5	5	1
Government	9	3	16	18	2

¹Includes payments for extra child care expenses incurred because of overtime or illness of the child and bringing the child to work.

Source: Hayghe, Howard, 1988, Employers and child care: what roles do they play? *Monthly Labor Review* 111(2):38-44, U.S. Department of Labor, Bureau of Labor Statistics.

Table 3. Provision of type of work schedule or leave policy aiding child care, by establishment size and industry, summer 1987

Characteristic of establishment	Percent providing:					
	Flextime	Voluntary part time	Job sharing	Work at home	Flexible leave	Other ¹
Total	43	35	16	8	43	2
Size:						
10 – 49 employees	45	36	16	9	44	2
50 – 249 employees	38	32	14	6	40	3
250 employees or more	35	25	16	4	40	3
Industry:						
Private (total)	44	35	15	9	43	2
Goods-producing	31	22	9	8	37	1
Service-producing	48	39	17	9	45	2
Government	38	27	24	4	44	7

¹Includes ad hoc policies specific to an establishment or agency.

Source: Hayghe, Howard, 1988, Employers and child care: what roles do they play? *Monthly Labor Review* 111(9):38-44, U.S. Department of Labor, Bureau of Labor Statistics.

pay and benefits. These employees might work fewer hours at their usual job or transfer to another position that was part time. This practice was more prevalent among small than large establishments. It was also more prevalent among service-producing firms. Job sharing (one full-time job divided into two part-time jobs held by different people) was offered by about 16% of employers. There was very little variation in the extent of this policy by establishment size; however, it was more prevalent in government agencies than in industry.

Conclusion

Because the 1987 Survey was a one-time effort, it is difficult to extrapolate future trends from these data. However, only 2% of the establishments that reported no child care benefits or flexible work schedule policies said they were considering doing something in the future. This appears to contradict the more optimistic reports and comments by experts in the field of child care, which indicate employers are generally becoming more supportive of the child care needs of their workers.

Source: Hayghe, Howard, 1988, Employers and child care: what roles do they play? *Monthly Labor Review* 111(2):38-44, U.S. Department of Labor, Bureau of Labor Statistics.

Education Level of U.S. Labor Force

The educational attainment of the U.S. labor force increased significantly between 1978 and 1988, according to data from the March 1988 Current Population Survey (CPS).¹ In 1988, 26% of workers age 25 to 64 were college graduates, up from 21% in 1978. An additional 20% of workers had completed 1 to 3 years of college, up from 16% in 1978. As the proportion of workers with formal education beyond high school increased over the past decade, the proportion without a high school diploma declined sharply, from 24% in 1978 to 15% in 1988. The proportion ending their formal education with a high school diploma has remained stable at about 40%.

Although differences remain in the proportion of college graduates among whites, blacks, and Hispanics in the labor force, all three groups have achieved significant increases in educational attainment. In 1988, 26% of whites had attended 4 or more years of college (vs. 21% in 1978). Comparable figures for blacks were 15% in 1988 (up from 10% in 1978) and 13% for Hispanics (up from 9%). Over the decade, the proportion of labor force participants who had not completed 12 years of education dropped 17 percentage points (to 23%) for blacks, 12 percentage points (to 40%) for Hispanics, and 8 percentage points (to 14%) for whites.

College graduates continue to have the highest rate of labor force participation. Overall, 88% of all college graduates age 25 to 64 were in the labor force in March 1988. The participation rate for persons with 1 to 3 years of college was 83%, compared with 77% for those only graduating from high school and

61% for persons who had not completed 4 years of high school. Over the past 10 years, labor force participation rates in all educational groups declined for men but increased for women. Participation rates for women who were college graduates increased from 71% to 81%.

In March 1988, as in other years, the groups with the highest levels of education experienced the lowest incidence of unemployment. The jobless rate for college graduates (age 25 to 64) was 2%, compared with 4% for persons with 1 to 3 years of college, 5% for high school graduates, and 9% for high school dropouts.

Source: U.S. Department of Labor, Bureau of Labor Statistics, 1988, *News*, USDL 88-423.

Population Growth of the Middle Aged and the Elderly

The median age of the U.S. population will reach 43.9 years by 2080, up from 32.1 in 1988. The United States can expect to see a notable rise in the number of people 65 years old and over. According to middle series projections (see box), between 1987 and 1995 the elderly population is expected to increase 12%, or by 4 million people. However, in the 10 years following (1995 – 2005), the number will increase more slowly, by only 2.5 million. After 2010 (as baby boomers become senior citizens) this population will climb more rapidly – from 39.4 million in 2010 to 52.1 million by 2030, and to 65.6 million by 2040. Well over 71.6 million Americans, out of a projected total of 292 million, will be elderly by 2080; 17 million of these will be 85 years old and over.

The effect of this aging process can be seen in the "dependency ratio." This ratio shows how many children and elderly there are for every 100 people of working age (18 to 64 years). The overall ratio is projected to decline over the next 20 years, because there will be fewer children per adult. By 2010 the projected dependency ratio will drop to 57, from a high in 1965 of 83. This drop in the overall ratio reflects declines in youthful dependency. However, after 2010 the growing elderly population will force the ratio back up, and by 2080 overall dependency will be 78.0. Youthful dependency will be 34.4; elderly dependency, 43.6.

Projections of the U.S. population by age, sex, and race for the years 1988 to 2080 are based on July 1, 1986, population estimates. Three different assumptions (low, middle, and high) are made about future fertility, mortality, and net immigration levels. The series using the middle assumption for each component is designated the "middle series." For further information, see "Projections of the Population of the United States, by Age, Sex, and Race: 1988 to 2080," Population Estimates and Projections, Current Population Reports, Series P-25, No. 1018, by Gregory Spencer, Bureau of the Census, U.S. Department of Commerce.

Source: U.S. Department of Commerce, Bureau of the Census, 1989, Middle age is becoming the norm, *Census and You* 24(2):6.

¹The Current Population Survey is a monthly household survey conducted for the Bureau of Labor Statistics by the Bureau of the Census.

Rural and Farm Population

The 1987 rural and farm population estimates were prepared by the U.S. Department of Commerce, Bureau of the Census and the Economic Research Service, USDA. The estimates are annual averages of monthly data from the Current Population Survey (CPS) for the calendar year 1987.

Size and Distribution

In 1987 the number of persons living in rural areas of the United States was 63.9 million, or 27% of the total U.S. population. About 2% of the Nation's population had a farm residence—about 1 of every 13 rural residents in 1987. In 1920, when farm residents were first identified as a separate group in census statistics, they represented 30% of the total population. This proportion fell to 15% by 1950, and to 5% by 1970. No statistically significant change in the number of farm residents took place from 1986 to 1987. However, when year-to-year changes were cumulated from 1981 through 1987, the farm population averaged a significant loss of 2.5% per year. The rate of loss approximates the 2.9% average annual decline of the previous decade.

In 1987, one-half of the total farm population lived in the Midwest, whereas in 1950 the largest percentage of the farm population lived in the South (see table 1). Although most of the farm residents lived in nonmetropolitan territory, about one-fourth lived within the

boundaries of metropolitan areas. In contrast, more than three-fourths of the nonfarm population lived in metropolitan areas.

Social Characteristics

As compared with the nonfarm population, in 1987 the farm population had a higher proportion of whites, a lower proportion of blacks, and a lower proportion of Hispanics (who could be of any race), as shown in table 2.

Farm residents are older than the rural population in general. The median age of farm residents was 37.6 years in 1987—significantly higher than the median of 32.0 years for the nonfarm population. In 1987 the median age of the urban population was 31.8 years and the median age of the rural total was slightly higher at 32.8 years; however, both were significantly lower than the farm population median.

The ratio of males to females was higher in the farm population (109 to 100) than in the nonfarm population (93 to 100). Farm residents were more likely to be married than were nonfarm residents. About 67% of farm residents 15 years old or older were married and living with a spouse, compared with 56% of nonfarm residents. As might be expected given the gender ratios, this difference was greater among women than men—70% of farm women were married and living with their husbands versus 53% of nonfarm women, whereas 63% of farm men were married versus 58% of nonfarm men. Relatively fewer farm than nonfarm residents were married and living apart, widowed, or divorced; however, the percentage of residents who were single was similar for the farm and nonfarm populations.

Table 1. Distribution of U.S. population, by region

Region	Total population		Farm population	
	1950	1987	1950	1987
	Percent			
Northeast	26.1	20.7	7.8	6.1
Midwest	29.4	24.5	32.3	50.7
South	31.2	34.4	51.6	28.7
West	13.3	20.4	8.4	14.5

Source: U.S. Department of Commerce, Bureau of the Census, 1988, *Rural and Farm Population: 1987*, Current Population Reports, Series P-27, No. 61.

Table 2. Race and Hispanic origin of U.S. population, by farm and nonfarm residents

Race and Hispanic origin	Total	Farm	Nonfarm
	Percent distribution ¹		
Total persons	100.0	100.0	100.0
White	84.7	97.0	84.4
Black	12.1	2.5	12.3
Other races	3.2	0.6	3.3
Hispanic origin	7.9	2.7	8.1

¹Percentages do not add to 100 because Hispanics are also included as either white, black, or other.

¹The farm population consists of persons residing on rural farms only; it does not include the residents of the small number of farms located in urban areas. The CPS defines a farm as a place that sold \$1,000 or more in agricultural products during the preceding year. Rural areas include the open countryside and also towns and villages with a population lower than 2,500, that are not in the suburbs of large cities.

There were 1.7 million farm households in 1987, representing about 2% of all U.S. households. Families comprised about 85% of farm households, compared with 72% of the nonfarm households. The average family size was about the same for farm and nonfarm households—3.28 and 3.18 members, respectively. In the past, this difference was considerably larger. For example, in 1950 farm families averaged 4.13 members, compared with 3.52 for nonfarm families. In 1987 farm families were more likely than nonfarm families to have both husband and wife present (94%, compared with 80%) but were less likely to have children living at home (41%, compared with 50%) despite their somewhat higher fertility rate. This reflects the older age structure of the farm population.

Economic Characteristics

About 69% of farm residents 15 years old and over were in the labor force in 1987. In every age group except 20 to 24 years, the proportion of farm men in the labor force was significantly higher than that of nonfarm men. Farm women, however, had about the same proportion in the labor force as nonfarm women at all ages until age 65 and over, when farm women's participation rate exceeded that for nonfarm women. A relatively low rate of unemployment characterizes the farm resident labor force. Only 3% of the labor force living on farms was unemployed in 1987, compared with 6% of the nonfarm labor force. However, Midwestern farm residents were less likely to be unemployed than Southern farm residents. Higher labor force participation and lower unemployment are distinctive of the farm population. The overall rural labor force participation rate and the unemployment rate were both only slightly lower than the urban rates.

The annual average estimate of the number of persons with farm occupations in 1987 was 3.4 million (about 3% of the total employed labor force). About two-fifths of the group were "farm operators and managers;" the remainder were "farm workers and related occupations." Farm operators and managers were more likely to live on farms than farm workers. About two-thirds of farm operators and managers lived on farms in 1987, compared with just one-sixth of farm workers and workers in related occupations.²

Employed farm residents overall were slightly more likely to work in nonfarm than in farm occupations as their primary job. Male farm residents who were employed, however, most often had farm jobs (61%), generally as farm operators and managers. Only 25% of farm women worked in farm occupations. Farm residents of both sexes were much more likely to be self-employed or unpaid family workers than nonfarm residents and less likely to work for wages and salaries. In 1987 the predominance of self-employment in agriculture was more pronounced among farm men (70%) than women (49%). A much lower proportion of men (4%) than women (27%) were unpaid family workers, and similar proportions of both sexes were in wage and salary jobs.

Money income for 1986 was lower for households and families living on farms than for those in nonfarm areas. According to the March 1987 CPS supplement, the 1986 median income was \$21,655 for farm households and \$24,979 for nonfarm

households. In 1986 the median income of farm families was \$23,326, 79% of the nonfarm family median of \$29,632. There was no statistically significant change in the median income of farm families from 1985 to 1986, after adjusting for inflation. The median family income of nonfarm families, in contrast, increased by 4.3% over this period. The income reported by farm households and families includes both farm and nonfarm income. The Economic Research Service has estimated that in 1986 about 46% of cash income of farm operator households came from off-farm sources. Farm operator households with annual farm sales of less than \$40,000, which represent 73% of all farms, received 81% of the total off-farm income.

The March 1987 CPS reported that 16% of all farm families had incomes below the poverty level, compared with 11% of nonfarm families. The poverty rate for all farm residents, including unrelated individuals, was 20%—considerably higher than the rate of 13% for nonfarm residents.³

³Data on consumer income collected in the CPS are limited to money income received before payments of Federal, State, local, or Social Security (FICA) taxes and before any other types of deductions such as union dues or Medicare premiums. Money income is the sum of amounts received from earnings; Social Security and public assistance payments; dividends, interest, and rent; unemployment and worker's compensations; government and private employees' pensions; and other periodic income. Money income does not include noncash benefits such as food stamps or subsidized housing, food produced and consumed on the farm, or rent-free housing.

Source: U.S. Department of Commerce, Bureau of the Census, 1988, *Rural and Rural Farm Population: 1987*, Current Population Reports Series P-27, No. 61.

²The category "farm workers and related occupations" includes persons in related jobs not performed on farms or in rural settings. According to the 1980 Census of Population, one-third of these workers had related occupations—groundkeepers and gardeners; and graders, sorters, and inspectors of agricultural products. In 1987 workers in this category were as likely to have urban as rural residences, whereas 90% of farm operators and managers had rural residences.

Updated Estimates of the Cost of Raising a Child

The cost of raising urban children: 1988 annual average; moderate-cost level ¹

Region and age of child (years)	Total	Food at home ²	Food away from home	Clothing	Housing ³	Medical care	Education	Transportation	All other ⁴
MIDWEST:									
Under 1	\$4,927	\$640	\$0	\$155	\$2,118	\$365	\$0	\$904	\$745
1	5,072	785	0	155	2,118	365	0	904	745
2-3	4,724	785	0	252	1,861	365	0	787	674
4-5	5,005	902	164	252	1,861	365	0	787	674
6	5,259	873	164	349	1,765	365	175	787	781
7-9	5,462	1,076	164	349	1,765	365	175	787	781
10-11	5,666	1,280	164	349	1,765	365	175	787	781
12	6,042	1,309	197	505	1,829	365	175	846	816
13-15	6,188	1,455	197	505	1,829	365	175	846	816
16-17	6,778	1,629	197	699	1,893	365	175	933	887
Total	100,596	20,392	2,494	6,830	33,372	6,570	2,100	14,928	13,910
NORTHEAST:									
Under 1	4,887	756	0	155	2,150	365	0	787	674
1	5,062	931	0	155	2,150	365	0	787	674
2-3	4,935	902	0	272	1,957	365	0	729	710
4-5	5,215	1,018	164	272	1,957	365	0	729	710
6	5,638	1,018	197	369	1,925	365	219	729	816
7-9	5,842	1,222	197	369	1,925	365	219	729	816
10-11	6,104	1,484	197	369	1,925	365	219	729	816
12	6,466	1,484	197	543	1,990	365	219	816	852
13-15	6,640	1,658	197	543	1,990	365	219	816	852
16-17	7,110	1,833	230	679	2,022	365	219	875	887
Total	106,227	23,303	2,758	7,142	35,682	6,570	2,628	13,878	14,266
SOUTH:									
Under 1	5,371	698	0	175	2,278	406	0	962	852
1	5,517	844	0	175	2,278	406	0	962	852
2-3	5,177	815	0	272	2,022	406	0	846	816
4-5	5,428	902	164	272	2,022	406	0	846	816
6	5,794	902	197	369	1,925	406	262	846	887
7-9	5,968	1,076	197	369	1,925	406	262	846	887
10-11	6,201	1,309	197	369	1,925	406	262	846	887
12	6,602	1,309	230	543	1,990	406	262	904	958
13-15	6,777	1,484	230	543	1,990	406	262	904	958
16-17	7,265	1,629	230	699	2,054	406	262	991	994
Total	109,661	20,743	2,890	7,222	36,262	7,308	3,144	15,982	16,110
WEST:									
Under 1	5,292	698	0	155	2,214	447	0	962	816
1	5,467	873	0	155	2,214	447	0	962	816
2-3	5,195	844	0	252	1,990	447	0	846	816
4-5	5,508	960	197	252	1,990	447	0	846	816
6	5,951	931	230	369	1,957	447	219	875	923
7-9	6,155	1,135	230	369	1,957	447	219	875	923
10-11	6,416	1,396	230	369	1,957	447	219	875	923
12	6,758	1,396	230	524	2,022	447	219	962	958
13-15	6,904	1,542	230	524	2,022	447	219	962	958
16-17	7,567	1,745	263	660	2,118	447	219	1,050	1,065
Total	112,017	21,819	3,220	6,948	36,454	8,046	2,628	16,506	16,396

¹ Annual cost of raising a child from birth to age 18, by age, in a husband-wife family with no more than 5 children. For more information on these and additional child cost estimates, see USDA Miscellaneous Publication No. 1411, "USDA Estimates of the Cost of Raising a Child: A Guide to Their Use and Interpretation," by Carolyn S. Edwards, Family Economics Research Group, Agricultural Research Service, USDA.

² Includes home-produced food and school lunches.

³ Includes shelter, fuel, utilities, household operations, furnishings, and equipment.

⁴ Includes personal care, recreation, reading, and other miscellaneous expenditures.

The cost of raising rural nonfarm children: 1988 annual average; moderate-cost level ¹

Region and age of child (years)	Total	Food at home ²	Food away from home	Clothing	Housing ³	Medical care	Education	Transportation	All other ⁴
MIDWEST:									
Under 1	\$4,654	\$582	\$0	\$136	\$2,022	\$365	\$0	\$875	\$674
1	4,799	727	0	136	2,022	365	0	875	674
2 - 3	4,270	698	0	214	1,701	325	0	729	603
4 - 5	4,518	815	131	214	1,701	325	0	729	603
6	4,910	815	164	330	1,669	325	175	758	674
7 - 9	5,084	989	164	330	1,669	325	175	758	674
10 - 11	5,317	1,222	164	330	1,669	325	175	758	674
12	5,715	1,222	164	505	1,733	325	175	846	745
13 - 15	5,860	1,367	164	505	1,733	325	175	846	745
16 - 17	6,292	1,513	197	621	1,765	365	175	875	781
Total	93,704	18,910	2,296	6,370	31,324	6,010	2,100	14,348	12,346
NORTHEAST:									
Under 1	5,404	698	0	155	2,278	365	0	1,021	887
1	5,550	844	0	155	2,278	365	0	1,021	887
2 - 3	5,303	815	0	252	2,086	365	0	933	852
4 - 5	5,616	931	197	252	2,086	365	0	933	852
6	6,067	931	230	369	2,054	365	262	933	923
7 - 9	6,241	1,105	230	369	2,054	365	262	933	923
10 - 11	6,503	1,367	230	369	2,054	365	262	933	923
12	6,890	1,367	230	563	2,118	365	262	991	994
13 - 15	7,065	1,542	230	563	2,118	365	262	991	994
16 - 17	7,670	1,716	263	738	2,182	365	262	1,079	1,065
Total	114,013	21,439	3,220	7,260	38,060	6,570	3,144	17,494	16,826
SOUTH:									
Under 1	5,575	698	0	175	2,278	406	0	1,166	852
1	5,692	815	0	175	2,278	406	0	1,166	852
2 - 3	5,163	785	0	272	1,957	406	0	962	781
4 - 5	5,477	902	197	272	1,957	406	0	962	781
6	5,742	873	197	369	1,893	406	219	933	852
7 - 9	5,916	1,047	197	369	1,893	406	219	933	852
10 - 11	6,149	1,280	197	369	1,893	406	219	933	852
12	6,599	1,280	230	563	1,957	406	219	1,021	923
13 - 15	6,744	1,425	230	563	1,957	406	219	1,021	923
16 - 17	7,311	1,600	263	796	1,990	406	219	1,079	958
Total	109,788	20,216	3,022	7,496	35,550	7,308	2,628	18,020	15,548
WEST:									
Under 1	5,805	698	0	155	2,310	447	0	1,166	1,029
1	5,951	844	0	155	2,310	447	0	1,166	1,029
2 - 3	5,377	815	0	252	1,990	406	0	991	923
4 - 5	5,690	931	197	252	1,990	406	0	991	923
6	6,173	902	197	388	1,957	447	262	991	1,029
7 - 9	6,376	1,105	197	388	1,957	447	262	991	1,029
10 - 11	6,609	1,338	197	388	1,957	447	262	991	1,029
12	7,060	1,338	230	582	2,022	447	262	1,079	1,100
13 - 15	7,235	1,513	230	582	2,022	447	262	1,079	1,100
16 - 17	7,913	1,716	263	679	2,150	447	262	1,225	1,171
Total	117,000	21,236	3,022	7,332	36,710	7,882	3,144	19,008	18,666

¹ Annual cost of raising a child from birth to age 18, by age, in a husband-wife family with no more than 5 children. For more information on these and additional child cost estimates, see USDA Miscellaneous Publication No. 1411, "USDA Estimates of the Cost of Raising a Child: A Guide to Their Use and Interpretation," by Carolyn S. Edwards, Family Economics Research Group, Agricultural Research Service, USDA.

² Includes home-produced food and school lunches.

³ Includes shelter, fuel, utilities, household operations, furnishings, and equipment.

⁴ Includes personal care, recreation, reading, and other miscellaneous expenditures.

Cost of Food at Home

Cost of food at home estimated for food plans at 4 cost levels, March 1989, U.S. average ¹

Sex-age group	Cost for 1 week				Cost for 1 month			
	Thrifty plan	Low-cost plan	Moderate-cost plan	Liberal plan	Thrifty plan	Low-cost plan	Moderate-cost plan	Liberal plan
FAMILIES								
Family of 2: ²								
20-50 years	\$44.20	\$55.70	\$68.80	\$85.50	\$191.30	\$241.10	\$297.80	\$370.40
51 years and over	41.80	53.50	66.00	79.00	181.00	231.40	286.10	342.50
Family of 4:								
Couple, 20-50 years and children—								
1-2 and 3-5 years	64.30	80.00	97.80	120.20	278.30	346.70	423.90	520.90
6-8 and 9-11 years	73.70	94.00	117.60	141.70	318.90	407.20	509.60	614.20
INDIVIDUALS ³								
Child:								
1-2 years	11.60	14.10	16.40	19.80	50.20	61.00	71.10	85.80
3-5 years	12.50	15.30	18.90	22.70	54.20	66.50	82.10	98.40
6-8 years	15.30	20.30	25.40	29.60	66.20	88.00	110.10	128.50
9-11 years	18.20	23.10	29.70	34.40	78.80	100.00	128.80	149.00
Male:								
12-14 years	19.00	26.20	32.70	38.30	82.40	113.40	141.80	166.10
15-19 years	19.70	27.10	33.60	39.00	85.40	117.20	145.60	168.90
20-50 years	21.10	26.90	33.70	40.80	91.30	116.60	145.90	176.70
51 years and over	19.20	25.60	31.50	37.80	83.00	110.80	136.70	163.90
Female:								
12-19 years	18.90	22.70	27.50	33.30	82.00	98.30	119.30	144.40
20-50 years	19.10	23.70	28.80	36.90	82.60	102.60	124.80	160.00
51 years and over	18.80	23.00	28.50	34.00	81.50	99.60	123.40	147.50

¹ Assumes that food for all meals and snacks is purchased at the store and prepared at home. Estimates for the thrifty food plan were computed from quantities of foods published in *Family Economics Review* 1984(1). Estimates for the other plans were computed from quantities of foods published in *Family Economics Review* 1983(2). The costs of the food plans are estimated by updating prices paid by households surveyed in 1977-78 in USDA's Nationwide Food Consumption Survey. USDA updates these survey prices using information from the Bureau of Labor Statistics, *CPI Detailed Report*, table 3, to estimate the costs for the food plans.

² 10 percent added for family size adjustment. See footnote 3.

³ The costs given are for individuals in 4-person families. For individuals in other size families, the following adjustments are suggested: 1-person—add 20%; 2-person—add 10%; 3-person—add 5%; 5- or 6-person—subtract 5%; 7- or more-person—subtract 10%.

Consumer Prices

Consumer Price Index for all urban consumers [1982-84 = 100]

Group	Unadjusted indexes			
	March 1989	February 1989	January 1989	March 1988
All items	122.3	121.6	121.1	116.5
Food	123.5	122.9	122.2	115.9
Food at home	122.7	122.0	121.2	113.9
Food away from home	125.7	125.2	124.7	120.2
Housing	121.5	121.1	120.7	117.0
Shelter	131.2	130.3	129.8	125.6
Renters' costs ¹	138.6	136.3	135.2	132.9
Homeowners' costs ¹	135.0	134.7	134.4	129.2
Household insurance ¹	131.3	131.2	130.9	127.8
Maintenance and repairs	117.1	117.1	116.1	113.3
Maintenance and repair services	119.6	119.9	118.7	116.4
Maintenance and repair commodities	113.8	113.4	112.8	109.2
Fuel and other utilities	105.9	105.9	106.0	102.7
Fuel oil and other household fuel commodities	81.5	81.4	80.5	80.5
Gas (piped) and electricity	104.8	104.9	105.1	101.7
Household furnishings and operation	110.5	110.9	110.9	108.3
Housefurnishings	105.1	105.9	106.0	104.7
Housekeeping supplies	118.5	117.7	117.5	112.9
Housekeeping services	116.9	116.8	116.6	111.7
Apparel and upkeep	119.3	115.3	115.3	114.3
Apparel commodities	117.5	113.3	113.3	112.7
Men's and boys' apparel	115.9	114.2	115.1	111.6
Women's and girl's apparel	119.4	111.4	111.6	115.3
Infants' and toddlers apparel	118.5	118.8	115.6	114.0
Footwear	114.1	112.7	112.2	107.3
Apparel services	128.5	127.8	127.3	122.2
Transportation	111.9	111.6	111.1	106.5
Private transportation	110.7	110.3	109.8	105.4
New vehicles	119.4	119.5	119.4	115.7
Used cars	120.5	120.5	120.5	116.1
Motor fuel	81.5	80.3	79.6	77.5
Automobile maintenance and repair	123.5	123.3	122.4	118.5
Other private transportation	134.5	134.3	133.5	124.9
Other private transportation commodities	100.1	101.2	101.0	98.3
Other private transportation services	141.9	141.4	140.4	130.3
Public transportation	128.2	128.1	127.5	121.4
Medical care	146.1	145.2	143.8	136.3
Medical care commodities	147.2	145.8	145.0	137.0
Medical care services	145.9	145.1	143.5	136.1
Professional medical services	144.4	143.5	142.2	135.4
Entertainment	124.7	124.3	123.8	119.0
Entertainment commodities	118.5	118.4	118.1	113.4
Entertainment services	132.9	132.3	131.6	126.5
Other goods and services	144.4	144.1	143.4	134.6
Personal care	123.6	123.2	122.8	118.1
Toilet goods and personal care appliances	122.4	121.9	121.7	116.8
Personal care services	124.8	124.4	123.8	119.2
Personal and educational expenses	154.6	154.4	154.0	145.0
School books and supplies	155.1	155.0	153.3	146.2
Personal and educational services	154.7	154.6	154.2	145.1

¹ Indexes on a December 1982 = 100 base.

Source: U.S. Department of Labor, Bureau of Labor Statistics.

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